All-trans-retinol dehydrogenase [NAD(+)] ADH1B (ADH1B) Recombinant Protein | ADH1B recombinant protein

Recombinant Human All-trans-retinol dehydrogenase [NAD(+)] ADH1B (ADH1B)

CATALOG #	HOST
AAA113385	**E Coli or Yeast or Baculovirus or Mammalian Cell**

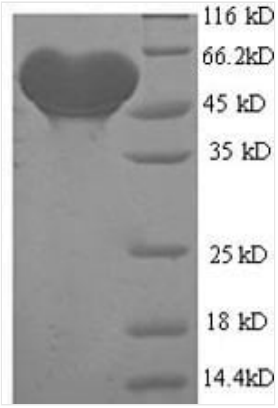
PRODUCT SYNONYMS

All-trans-retinol dehydrogenase [NAD(+)] ADH1B (ADH1B); Recombinant Human All-trans-retinol dehydrogenase [NAD(+)] ADH1B (ADH1B); Alcohol dehydrogenase subunit beta; ADH1B recombinant protein

PRODUCT SPECIFICATIONS

Host	E Coli or Yeast or Baculovirus or Mammalian Cell
Purity/Purification	Greater or equal to 85% purity as determined by SDS-PAGE.
Form/Format	Lyophilized or liquid (Format to be determined during the manufacturing process)
Sequence Positions	2-375aa; Full Length of Mature Protein
Sequence	STAGKVIKCK AAVLWEVKKP FSIEDVEVAP PKAYEVRIKM VAVGICRTDD HVVSGNLVTP LPVILGHEAA GIVESVGEGV TTVKPGDKVI PLFTPQCGKC RVCKNPESNY CLKNDLGNPR GTLQDGTRRF TCRGKPIHHF LGTSTFSQYT VVDENAVAKI DAASPLEKVC LIGCGFSTGY GSAVNVAKVT PGSTCAVFGL GGVGLSAVMG CKAAGAARII AVDINKDKFA KAKELGATEC INPQDYKKPI QEVLKEMTDG GVDFSFEVIG RLDTMMASLL CCHEACGTSV IVGVPPASQN LSINPMLLLT GRTWKGAVYG GFKSKEGIPK LVADFMAKKF SLDALITHVL PFEKINEGFD LLHSGKSIRT VLTF
Production Note	**Special Offer:** The E Coli host-expressed protein is manufactured from a stock plasmid containing the protein gene. E Colihost-expressed protein is stocked in different unit sizes ranging from as small as 10 ug to as large as 1 mg. Bulk inventory is also available. The E Coli host-expressed protein has been ordered over and over again by researchers and has stood the test of time as both a robust protein and important target for the research community. It is part of our new program to make our most popular protein targets and corresponding hosts available in expanded unit sizes and with a quick processing time. Select E Coli host-expressed protein for the fastest delivery among all hosts. Please contact our **or email to** for more details.
Preparation and Storage	Store at -20 degree C, for extended storage, conserve at -20 degree C or -80 degree C.

IMAGES



SDS-PAGE

ADDITIONAL INFORMATION

Product Categories/Family for ADH1B recombinant protein	Metabolism

References

Molecular cloning of a full-length cDNA for human alcohol dehydrogenase.Ikuta T., Fujiyoshi T., Kurachi K., Yoshida A.Proc. Natl. Acad. Sci. U.S.A. 82:2703-2707(1985) ErratumIkuta T., Fujiyoshi T., Kurachi K., Yoshida A.Proc. Natl. Acad. Sci. U.S.A. 82:5578-5578(1985) cDNA clones coding for the beta-subunit of human liver alcohol dehydrogenase have differently sized 3'-non-coding regions.Heden L.-O., Hoeoeg J.-O., Larsson K., Lake M., Lagerholm E., Holmgren A., Vallee B.L., Joernvall H., von Bahr-Lindstroem H.FEBS Lett. 194:327-332(1986) Molecular analysis of the human class I alcohol dehydrogenase gene family and nucleotide sequence of the gene encoding the beta subunit.Duester G., Smith M., Bilanchone V., Hatfield G.W.J. Biol. Chem. 261:2027-2033(1986) Three human alcohol dehydrogenase subunits cDNA structure and molecular and evolutionary divergence.Ikuta T., Szeto S., Yoshida A.Proc. Natl. Acad. Sci. U.S.A. 83:634-638(1986) Molecular characterization of cDNA clones encoding the human alcohol dehydrogenase beta 1 and the evolutionary relationship to the other class I subunits alpha and gamma.Yokoyama S., Yokoyama R., Rotwein P.Jpn. J. Genet. 62:241-256(1987) Nucleotide sequence of the ADH2(3) gene encoding the human alcohol dehydrogenase beta 3 subunit.Carr L.G., Xu Y., Ho W.H., Edenberg H.J.Alcohol. Clin. Exp. Res. 13:594-596(1989) The genes for human alcohol dehydrogenases beta 1 and beta 2 differ by only one nucleotide.Matsuo Y., Yokoyama R., Yokoyama S.Eur. J. Biochem. 183:317-320(1989) Polin L., Hey-Chi H. NIEHS SNPs programComplete sequencing and characterization of 21,243 full-length human cDNAs.Ota T., Suzuki Y., Nishikawa T., Otsuki T., Sugiyama T., Irie R., Wakamatsu A., Hayashi K., Sato H., Nagai K., Kimura K., Makita H., Sekine M., Obayashi M., Nishi T., Shibahara T., Tanaka T., Ishii S., Yamamoto J., Saito K., Kawai Y., Isono Y., Nakamura Y., Nagahari K., Murakami K., Yasuda T., Iwayanagi T., Wagatsuma M., Shiratori A., Sudo H., Hosoiri T., Kaku Y., Kodaira H., Kondo H., Sugawara M., Takahashi M., Kanda K., Yokoi T., Furuya T., Kikkawa E., Omura Y., Abe K., Kamihara K., Katsuta N., Sato K., Tanikawa M., Yamazaki M., Ninomiya K., Ishibashi T., Yamashita H., Murakawa K., Fujimori K., Tanai H., Kimata M., Watanabe M., Hiraoka S., Chiba Y., Ishida S., Ono Y., Takiguchi S., Watanabe S., Yosida M., Hotuta T., Kusano J., Kanehori K., Takahashi-Fujii A., Hara H., Tanase T.-O., Nomura Y., Togiya S., Komai F., Hara R., Takeuchi K., Arita M., Imose N., Musashino K., Yuuki H., Oshima A., Sasaki N., Aotsuka S., Yoshikawa Y., Matsunawa H., Ichihara T., Shiohata N., Sano S., Moriya S., Momiyama H., Satoh N., Takami S., Terashima Y., Suzuki O., Nakagawa S., Senoh A., Mizoguchi H., Goto Y., Shimizu F., Wakebe H., Hishigaki H., Watanabe T., Sugiyama A., Takemoto M., Kawakami B., Yamazaki M., Watanabe K., Kumagai A., Itakura S., Fukuzumi Y., Fujimori Y., Komiyama M., Tashiro H., Tanigami A., Fujiwara T., Ono T., Yamada K., Fujii Y., Ozaki K., Hirao M., Ohmori Y., Kawabata A., Hikiji T., Kobatake N., Inagaki H., Ikema Y., Okamoto S., Okitani R., Kawakami T., Noguchi S., Itoh T., Shigeta K., Senba T., Matsumura K., Nakajima Y., Mizuno T., Morinaga M., Sasaki M., Togashi T., Oyama M., Hata H., Watanabe M., Komatsu T., Mizushima-Sugano J., Satoh T., Shirai Y., Takahashi Y., Nakagawa K., Okumura K., Nagase T., Nomura N., Kikuchi H., Masuho Y., Yamashita R., Nakai K., Yada T., Nakamura Y., Ohara O., Isogai T., Sugano S.Nat. Genet. 36:40-45(2004) Generation and annotation of the DNA sequences of human chromosomes 2 and 4.Hillier L.W., Graves T.A., Fulton R.S., Fulton L.A., Pepin K.H., Minx P., Wagner-McPherson C., Layman D., Wylie K., Sekhon M., Becker M.C., Fewell G.A., Delehaunty K.D., Miner T.L., Nash W.E., Kremitzki C., Oddy L., Du H., Sun H., Bradshaw-Cordum H., Ali J., Carter J., Cordes M., Harris A., Isak A., van Brunt A., Nguyen C., Du F., Courtney L., Kalicki J., Ozersky P., Abbott S., Armstrong J., Belter E.A., Caruso L., Cedroni M., Cotton M., Davidson T., Desai A., Elliott G., Erb T., Fronick C., Gaige T., Haakenson W., Haglund K., Holmes A., Harkins R., Kim K., Kruchowski S.S., Strong C.M., Grewal N., Goyea E., Hou S., Levy A., Martinka S., Mead K., McLellan M.D., Meyer R., Randall-Maher J., Tomlinson C., Dauphin-Kohlberg S., Kozlowicz-Reilly A., Shah N., Swearengen-Shahid S., Snider J., Strong J.T., Thompson J., Yoakum M., Leonard S., Pearman C., Trani L., Radionenko M., Waligorski J.E., Wang C., Rock S.M., Tin-Wollam A.-M., Maupin R., Latreille P., Wendl M.C., Yang S.-P., Pohl C., Wallis J.W., Spieth J., Bieri T.A., Berkowicz N., Nelson J.O., Osborne J., Ding L., Meyer R., Sabo A., Shotland Y., Sinha P., Wohldmann P.E., Cook L.L., Hickenbotham M.T., Eldred J., Williams D., Jones T.A., She X., Ciccarelli F.D., Izaurralde E., Taylor J., Schmutz J., Myers R.M., Cox D.R., Huang X., McPherson J.D., Mardis E.R., Clifton S.W., Warren W.C., Chinwalla A.T., Eddy S.R., Marra M.A., Ovcharenko I., Furey T.S., Miller W., Eichler E.E., Bork P., Suyama M., Torrents D., Waterston R.H., Wilson R.K.Nature 434:724-731(2005) Human liver alcohol dehydrogenase. 1. The primary structure of the beta 1 beta 1 isoenzyme.Hempel J., Buhler R., Kaiser R., Holmquist B., de Zalenski C., von Wartburg J.-P., Vallee B.L., Joernvall H.Eur. J. Biochem. 145:437-445(1984) Genotyping of human alcohol dehydrogenases at the ADH2 and ADH3 loci following DNA sequence amplification.Xu Y.L., Carr L.G., Bosron W.F., Li T.K., Edenberg H.J.Genomics 2:209-214(1988) Osier M., Speed W.C., Seaman M.I., Kidd K.K.An enzyme assisted RP-RPLC approach for in-depth analysis of human liver phosphoproteome.Bian Y., Song C., Cheng K., Dong M., Wang F., Huang J., Sun D., Wang L., Ye M., Zou H.J. Proteomics 96:253-262(2014) Human liver alcohol dehydrogenase amino acid substitution in the beta 2 beta 2 Oriental isozyme explains functional properties, establishes an active site structure, and parallels mutational exchanges in the yeast enzyme.Joernvall H., Hempel J., Vallee B.L., Bosron W.F., Li T.-K.Proc. Natl. Acad. Sci. U.S.A. 81:3024-3028(1984) The human beta 3 alcohol dehydrogenase subunit differs from beta 1 by a Cys for Arg-369 substitution which decreases NAD(H) binding.Burnell J.C., Carr L.G., Dwulet F.E., Edenberg H.J., Li T.-K., Bosron W.F.Biochem. Biophys. Res. Commun. 146:1127-1133(1987) Structure of human beta 1 beta 1 alcohol dehydrogenase catalytic effects of non-active-site substitutions.Hurley T.D., Bosron W.F., Hamilton J.A., Amzel L.M.Proc. Natl. Acad. Sci. U.S.A. 88:8149-8153(1991) Structures of three human beta alcohol dehydrogenase variants. Correlations with their functional differences.Hurley T.D., Bosron W.F., Stone C.L., Amzel L.M.J. Mol. Biol. 239:415-429(1994) X-ray structure of human beta3beta3 alcohol dehydrogenase. The contribution of ionic interactions to coenzyme binding.Davis G.J., Bosron W.F., Stone C.L., Owusu-Dekyi K., Hurley T.D.J. Biol. Chem. 271:17057-17061(1996) Three-dimensional structures of the three human class I alcohol dehydrogenases.Niederhut M.S., Gibbons B.J., Perez-Miller S., Hurley T.D.Protein Sci. 10:697-706(2001) Genetic polymorphism of alcohol dehydrogenase in Europeans the ADH2*2 allele decreases the risk for alcoholism and is associated with ADH3*1.Borras E., Coutelle C., Rosell A., Fernandez-Muixi F., Broch M., Crosas B., Hjelmqvist L., Lorenzo A., Gutierrez C., Santos M., Szczepanek M., Heilig M., Quattrocchi P., Farres J., Vidal F., Richart C., Mach T., Boggal J., Joernvall H., Seitz H.K., Couzigou P., Pares X.Hepatology 31:984-

NCBI AND UNIPROT INFORMATION

NCBI GI #	34577061
NCBI GeneID	125
NCBI Accession #	NP_000659.2
NCBI GenBank Nucleotide #	NM_000668.5
UniProt Accession #	P00325; Q13711; Q4ZGI9; Q96KI7; A8MYN5; B4DRS9; B4DVC3
Molecular Weight	55.7 kDa
NCBI Official Full Name	alcohol dehydrogenase 1B isoform 1
NCBI Official Synonym Full Names	alcohol dehydrogenase 1B (class I), beta polypeptide
NCBI Official Symbol	ADH1B
NCBI Official Synonym Symbols	ADH2; HEL-S-117
NCBI Protein Information	alcohol dehydrogenase 1B
UniProt Protein Name	Alcohol dehydrogenase 1B
UniProt Gene Name	**ADH1B**
UniProt Synonym Gene Names	ADH2
UniProt Entry Name	ADH1B_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: https://www.aaabiotech.com/adh1b-recombinant-protein-e-coli/113385